	Application No.	Applicant(s)
Notice of Allowability	10/045,806	ARGUELLO ET AL.
	Examiner	Art Unit
	Romain Jeanty	3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *12/26/06*.

2. ☒ The allowed claim(s) is/are *1-2, and 5-17*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

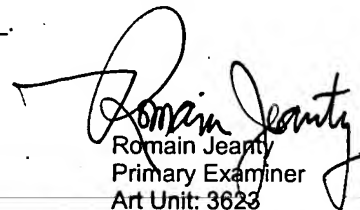   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
    Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Romain Jeanty
Primary Examiner
Art Unit: 3623

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Rudolph P. Hofmann on March 31, 2007.

In the claims:

Claim 1, line 12, after employee, insert --, and wherein said constraints include the

following seniority transfer processing constraints:

(i) $x_{k,j} - x_{k',j} \leq 0,$ $\forall k \in \Phi'_j,$ $\forall k' \in \Phi'_j,$ $\forall k' \gg k,$ $\forall j \in J;$

(ii) $y_{k,j} - x_{k',j} \leq 0,$ $\forall k \in \Phi_j \setminus \Phi'_j,$ $\forall k' \in \Phi'_j,$ $\forall k' \gg k,$ $\forall j \in J;$

(iii) $x_{k,j} - x_{k',j} - y_{k',j} \leq 0,$ $\forall k \in \Phi'_j,$ $\forall k' \in \Phi_j \setminus \Phi'_j,$ $\forall k' \gg k,$ $\forall j \in J;$ and

(iv) $y_{k,j} - x_{k',j} - y_{k',j} \leq 0,$ $\forall k \in \Phi_j \setminus \Phi'_j,$ $\forall k' \in \Phi_j \setminus \Phi'_j,$ $\forall k' \gg k,$ $\forall j \in J;$

<<start underline>>

   wherein $k,$ k' are employees;

   $i,$ $i',$ $j,$ j' are locations;

   J is a set of locations;

   Φ_j is a set of all employees with requests to transfer into location j;

   Φ'_j is a set of all employees whose primary transfer request is into location j;

   $x_{k,j}$ is a primary request for employee k to transfer into location j; and

   $y_{k,j}$ is a secondary request for employee k to transfer into location j.

--.

Claim 2, line 14, after assignment, insert --, wherein said optimized solution is obtained by solving a mixed integer programming model having at least one objective function, and comprised of decision variables and constraints developed from said employee data, said leave requests, said transfer requests, said parameter values, and said configuration settings, and wherein said constraints include the following seniority transfer processing constraints:

(i) $x_{k,j} - x_{k',j} \leq 0,$ $\forall k \in \Phi'_j,$ $\forall k' \in \Phi'_j,$ $\forall k' >> k,$ $\forall j \in J;$

(ii) $y_{k,j} - x_{k',j} \leq 0,$ $\forall k \in \Phi_j \setminus \Phi'_j,$ $\forall k' \in \Phi'_j,$ $\forall k' >> k,$ $\forall j \in J;$

(iii) $x_{k,j} - x_{k',j} - y_{k',j} \leq 0,$ $\forall k \in \Phi'_j,$ $\forall k' \in \Phi_j \setminus \Phi'_j,$ $\forall k' >> k,$ $\forall j \in J;$ and

(iv) $y_{k,j} - x_{k',j} - y_{k',j} \leq 0,$ $\forall k \in \Phi_j \setminus \Phi'_j,$ $\forall k' \in \Phi_j \setminus \Phi'_j,$ $\forall k' >> k,$ $\forall j \in J;$

<<start underline>>

wherein k, k' are employees;

i, i', j, j' are locations;

J is a set of locations;

Φ_j is a set of all employees with requests to transfer into location j;

Φ'_j is a set of all employees whose primary transfer request is into location j;

$x_{k,j}$ is a primary request for employee k to transfer into location j; and

$y_{k,j}$ is a secondary request for employee k to transfer into location j.

Claims 3 and 4: Cancelled.

Claims 5, 6, 7, 8, and 9, line 1, delete 3 and insert --2--.

Claim 12, line 15, after employees, insert -- and wherein said constraints include the following seniority transfer processing constraints:

(i) $x_{k,j} - x_{k',j} \leq 0,$ $\forall k \in \Phi'_j, \;\; \forall k' \in \Phi'_j, \;\; \forall k' \gg k, \;\; \forall j \in J;$

(ii) $y_{k,j} - x_{k',j} \leq 0,$ $\forall k \in \Phi_j \setminus \Phi'_j, \;\; \forall k' \in \Phi'_j, \;\; \forall k' \gg k, \;\; \forall j \in J;$

(iii) $x_{k,j} - x_{k',j} - y_{k,j} \leq 0,$ $\forall k \in \Phi'_j, \;\; \forall k' \in \Phi_j \setminus \Phi'_j, \;\; \forall k' \gg k, \;\; \forall j \in J;$ and

(iv) $y_{k,j} - x_{k',j} - y_{k',j} \leq 0,$ $\forall k \in \Phi_j \setminus \Phi'_j, \;\; \forall k' \in \Phi_j \setminus \Phi'_j, \;\; \forall k' \gg k, \;\; \forall j \in J;$

<<start underline>>

wherein k, k' are employees;

i, i', j, j' are locations;

J is a set of locations;

Φ_j is a set of all employees with requests to transfer into location j;

Φ'_j is a set of all employees whose primary transfer request is into location j;

$x_{k,j}$ is a primary request for employee k to transfer into location j; and

$y_{k,j}$ is a secondary request for employee k to transfer into location j.

--.

Allowable Subject Matter

2.   Claims 1-2, and 5-17 are allowed.

Reasons for Allowance

3.   The following is an examiner's statement of reasons for allowance:

The closest prior art is to Green (U.S. Patent No. 6192346), and Stilwell (Transfer decision making: different decision models depending on the transfer conditions). Green discloses a computerized systems and methods of planning, scheduling and managing vacations and holidays in a business environment. The system allows employees of a business to access the vacation and holiday planning system and select available holiday and vacation periods on a seniority basis. Stillwell discloses a decision making system for transferring employees. However, the combination of Green and Stilwell fails to teach generating a mixed integer programming model with decision variables and constraints, wherein said constraints include the following seniority transfer processing constraints of claim 1 above.

The closest prior art is to Green (U.S. Patent No. 6192346), and Stilwell (Transfer decision making: different decision models depending on the transfer conditions). Green discloses a computerized systems and methods of planning, scheduling and managing vacations and holidays in a business environment. The system allows employees of a business to access the vacation and holiday planning system and select available holiday and vacation periods on a seniority basis. Stillwell discloses a decision-making system for transferring employees. However, the combination of Green and Stilwell fails to teach wherein said optimized solution is obtained by solving a mixed integer programming model having at least one objective function, and comprised of decision variables and constraints developed from said employee data, said leave requests, said transfer requests, said parameter values, and said configuration settings, and wherein said constraints include the following seniority transfer processing constraints of claim 2 above.

The closest prior art is to Green (U.S. Patent No. 6,192,346), and Stilwell (Transfer decision making: different decision models depending on the transfer conditions). Green discloses a computerized systems and methods of planning, scheduling and managing vacations and holidays in a business environment. The system allows employees of a business to access the vacation and holiday planning system and select available holiday and vacation periods on a seniority basis. Stillwell discloses a decision-making system for transferring employees. However, the combination of Green and Stilwell fails to teach generating constraints from said data input data such that coefficient values are determined for said decision variables, and constraints sense and right hand values are determined for each of said constraints, wherein said constraints include the following seniority transfer processing constraints of claim 12 above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.   Marius (U.S. Patent No. 6,347,306), discloses a method for direct payroll processing which processes an employee leave information.
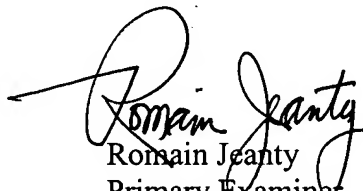
b.   Stojkovik et al (An Optimization Model for the Simultaneous Operational Flight and Pilot Scheduling Problem), discloses a method for scheduling crews for an airline.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Romain Jeanty whose telephone number is (571) 272-6732. The examiner can normally be reached on Mon-Thurs 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Romain Jeanty
Primary Examiner
Art Unit 3623
March 31, 2007